Conclusions: The initial results of GPBA and CBA were satisfactory compared to those of POBA, due to less dissections and elastic recoil. 6-month results of GPBA were favorable and similar to those of CBA, suggesting that both GPBA and CBA were more effective in cases with small coronary arteries compared to POBA.

1004.II-17 Catheter Interventional Septal Ablation for Hypertrophic Obstructive Cardiomyopathy: An Analysis of the Follow-Up Data From the Registry of the German Society of Cardiology

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Introduction: In 1997 the German Cardiac Society set up a registry to evaluate the acute and mid-term course of all patients (pts.) treated with septal ablation for symptomatic hypertrophic obstructive cardiomyopathy (HOCM). An analysis of the acute results has already been published (Eur. Heart J. 2000, 21, 413). We now report on the mid-term course (3-6 months) of pts. registered before September 1999.
Results: Follow-up was 92% complete (n=222/242). In addition to the in-hospital mortality of 3 pts. (1.2%), 3 other pts. died during follow-up. Pts. who died had a siginificantly higher CK level (721±307 vs. 477±254 U/l; p<0.05) and lower provokable outflow gradients (LVOTG) at discharge (18±33 vs. 48±40 mm Hg, p=0.08). Overall symptomatic improvement in the surviving pts. parallelled the reduction of left atrial (LA) diameter, septal thickness and outflow gradients.
Conclusion: Clinical success by septal ablation can be achieved in about 90% of highly symptomatic HOCM pts. During mid-term follow-up symptoms and outflow gradients are further improved as compared to the acute result. Analysis of 90 day mortality, however, suggests a cautious approach with respect to the intensity of acute LVOTG reduction, and to the creation of very large ablation lesions.

Parameter	baseline	acute result	follow-up result	p-value
NYHA functional class	2.8±0.7	1.8±0.6	1.7±0.7	<0.0001
LA diameter (mm)	46±9		44±7	<0.0001
Septal thickness (mm)	20±5		15±5	<0.0001
LVOTG (rest, mm Hg)	57±31	23±25	20±21	<0.0001
LVOTG (stress, mm Hg)	108±53	47±40	44±40	<0.0001

1004.II-18 Late Angiographic Assessment of the Edge Effect and Restenosis Associated With Intraluminal Sonotherapy: Results From the SILENT (Sonotherapy for In-Lesion Elimination of Neointimal Tissue) Trial

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Background: Use of intraluminal sonotherapy (1 MHz) reduces intimal hyperplasia after stent deployment in animal models, but little data on the ability of sonotherapy prior to intracoronary stent implantation to prevent restenosis in humans is available. Moreover, the effects of sonotherapy at the edges of the delivery source in regions that have not received balloon injury are unknown. **Methods:** Angiographic images were available on 93 patients enrolled to receive sonotherapy with stent implantation for denovo coronary stenoses. We used quantitative angiography to assess lumen changes in several pre-determined zones: within the stented segment; within the balloon "injured" segment; within the ultrasound segment, within the zones treated with sonotherapy, and at the 5 mm proximal and distal edge of the sonotherapy source. **Results:** Baseline lesion characteristics were similar to contemporary coronary stenting trials. At 6 month follow-up (data available on 84% of patients enrolled) the binary restenosis rate within the stent, balloon injured and sonotherapy treated segments was 16.7%, with only one additional patient exhibiting restenosis in the analysis zone, beyond the area treated with sonotherapy.

Lesion Characteristic	Sonotherapy Treated Patients (N=93)
Baseline	
Reference Vessel Diameter (mm)	2.88±0.46
Minimal Lumen Diameter (mm)	0.85±0.44
Percent Diameter Stenosis	70.3%±14.9%
Post Procedure	
Reference Vessel Diameter (mm)	2.93±0.45
In-Stent Minimal Lumen Diameter (mm)	2.86±0.44
In-Stent Percent Diameter Stenosis	1.8%±10.6%
Injured Segment Percent Diameter Stenosis	6.8%±12.4%
Sonotherapy Segment Percent Diameter Stenosis	14.9%±12.6%
Analysis Segment Percent Diameter Stenosis	18.1%±12.6%
Follow-Up	
Reference Vessel Diameter (mm)	2.90±0.52
In-Stent Minimal Lumen Diameter (mm)	1.90±0.73
In-Stent Percent Diameter Stenosis	35.3%±21.3%
Injured Segment Percent Diameter Stenosis	36.7%±20.6%
Sonotherapy Segment Percent Diameter Stenosis	37.8%±19.5%
Analysis Segment Percent Diameter Stenosis	38.7%±19.6%
In-Stent Binary Restenosis Rate	16.7% (13 / 78)
Injured Segment Binary Restenosis Rate	16.7% (13 / 78)
Sonotherapy Segment Binary Restenosis Rate	16.7% (13 / 78)
Analysis Segment Binary Restenosis Rate	17.9% (14 / 78)

Conclusions: The use of sonotherapy prior to stent implantation was associated with a favorable restenosis rate in this study. Additionally, there was no evidence of injury or increased restenosis in the vessel zones treated with sonotherapy only.

1004.II-19 Impact of Chronic Atrial Fibrillation on Morbidity and Mortality After Percutaneous Coronary Intervention

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Background: Atrial fibrillation (AF) is the most common clinically significant chronic arrhythmia. It is associated with an adverse prognosis and increased morbidity and mortality. The outcome of patients with AF who undergo percutaneous coronary intervention (PCI) has not been well determined. **Methods**: Between 1/95 and 3/2000, a total of 241 consecutive patients with chronic AF underwent PCI at our institution. These patients were matched for age with 1,278 patients with normal sinus rhythm (NSR) who underwent PCI during the same time period. **Results**: Patients with AF were significantly more likely to have cardiovascular disease risk factors and preexisting disease at baseline, including hypertension, prior myocardial infarction, bypass surgery and lower left ventricular function. Despite similar angiographic success rates in both groups (>96%), in-hospital complications were more frequent in AF patients (pulmonary edema, acute renal failure and death)(Table). By multivariate analysis, AF was an independent predictor of long-term mortality (OR:1.7,CI=0.98-3.03, p=0.03). **Conclusions**: The presence of atrial fibrillation in patients who undergo PCI is associated with markedly reduced survival compared with patients without AF, with risk factor-adjusted odds ratio for death of 1.7. The multivariate analyses suggests that the greater mortality probably was atributable to AF, rather than reflecting the greater burden of risk factors and cardiovascular disease of AF patients.

	AF (n=241)	*NSR (n=1,278)*	*p*
Death (in-hospital)	5.4 %	2.4 %	0.07
MACE (in-hospital)	5.8 %	3.3 %	0.06
Death (12-month)	18.6 %	8.8 %	<0.001
MACE (12-month)	24.6 %	17.4 %	0.04